

**AMENDMENTS TO THE SPECIFICATION:**

Please amend the paragraph beginning at page 10, line 3, as follows:

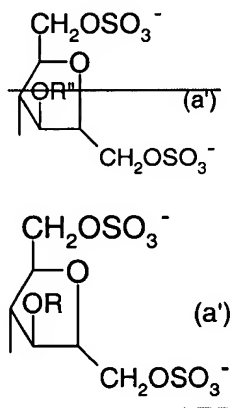
Figure 1 shows the NMR proton spectrum of ~~K5-NH<sub>2</sub>~~ epiK5-NH<sub>2</sub> O-sulfate with a sulfate/carboxy ratio of ~~2.87~~3.55 (obtained according to Example 1);

Please amend the paragraph beginning at page 10, line 5, as follows:

Figure 2 shows the NMR proton spectrum of epiK5-N-acetylate, O-sulfate with a sulfate/carboxy ratio of ~~4.26~~3.5 (obtained according to Example 2);

Please amend the paragraph beginning at page 31, line 1 as follows:

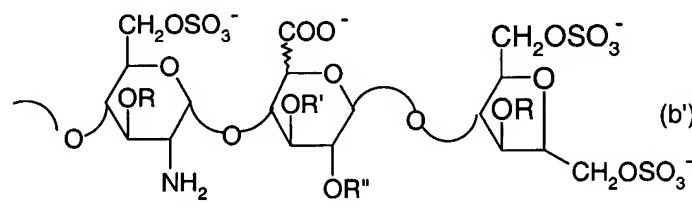
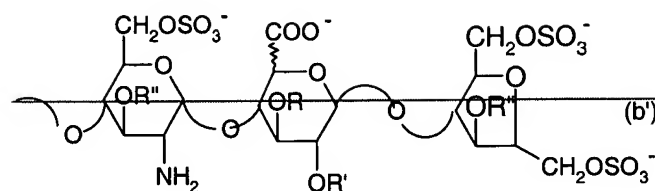
The origin of the new LMW-epiK5-amine-O-oversulfated from LMW-epiK5-N-sulfates obtained by nitrous depolymerization and subsequent reduction with, for example, sodium borohydride, involves, at the reducing end of the majority of the chains in said chain mixture, the presence of a sulfated 2,5-anhydromannitol unit of structure (a')



in which  $R''$  represents hydrogen or  $SO_3^-$ .

Please amend the paragraph beginning at page 31, line 8 as follows:

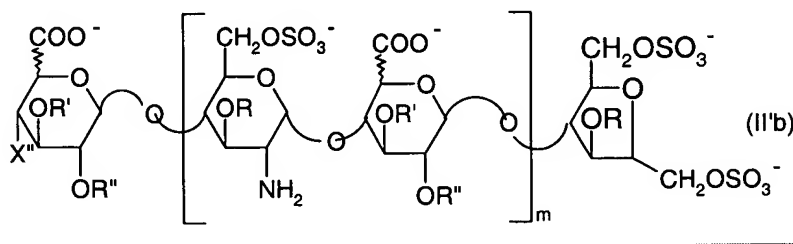
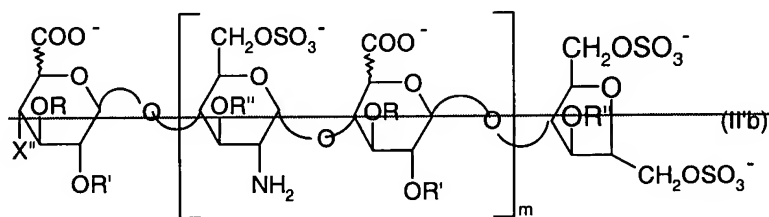
Thus, the reducing end of the majority of the chains in said chain mixture is represented by the structure (b')



in which the uronic unit can be glucuronic or iduronic.

Please amend the paragraph beginning at page 31, line 12 as follows:

Among the aforesaid new LMW-epiK5-amine-O-oversulfates, are preferred those consisting of mixtures in which the preponderant species is a compound of formula II'b



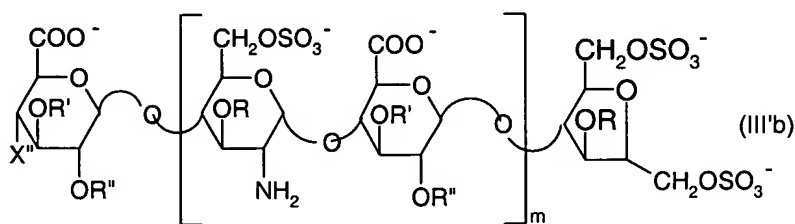
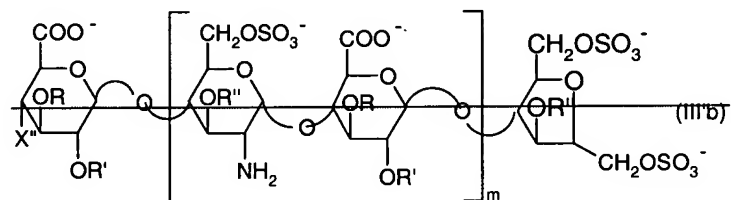
in which R, R' and R'' are hydrogen or SO<sub>3</sub><sup>-</sup>, X'' is OH or OSO<sub>3</sub><sup>-</sup>, m is 4, 5 or 6, the uronic units are 40-60% consisting of iduronic acid, for a degree of sulfation from 3.55 to 4, the iduronic units being present alternately, starting with a glucuronic or iduronic unit, and the corresponding cation is one chemically or pharmaceutically acceptable ion.

Please amend the paragraph beginning on page 33, line 7, as follows:

The origin of the new LMW-K5-amine-O-oversulfated from LMW-K5-sulfates obtained by nitrous depolymerization and subsequent reduction with, for example, sodium borohydride, involves, at the reducing end of the majority of the chains in said chain mixture, the presence of a sulfated 2,5-anhydromannitol unit of structure (a') as shown above, in which  $R''$  represents hydrogen or  $\text{SO}_3^-$ .

Please amend the paragraph beginning at page 33, line 16, as follows:

Among the aforesaid new LMW-K5-amine-O-oversulfates, are preferred those consisting of mixtures in which the preponderant species is a compound of formula III'b



in which R, R' and R'' are hydrogen or  $\text{SO}_3^-$ , X'' is OH or  $\text{OSO}_3^-$ , for a sulfation degree of at least 2.2, advantageously from 2.2 to 3 or from 2.3 to 3, more advantageously from 2.5 to 3, preferably from 2.7 to 2.9, m is 4, 5 or 6 and the corresponding cation is one chemically or pharmaceutically acceptable ion.

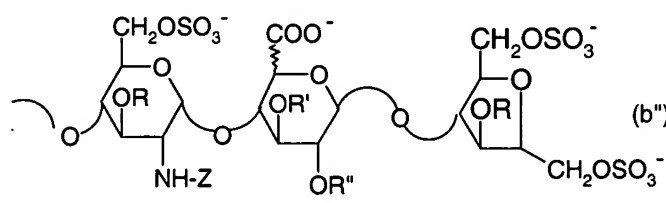
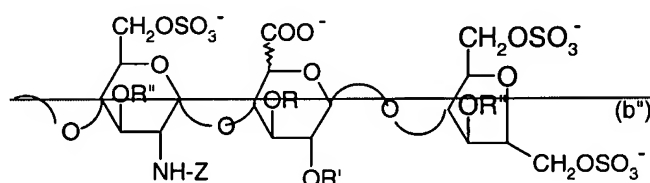
Please amend the paragraph beginning on page 38, line 22, as follows:

The origin of the new N-acyl-LMW-epiK5-amine-O-oversulfates from LMW-epiK5-

sulfates obtained by nitrous depolymerization and subsequent reduction with, for example, sodium borohydride, involves, at the reducing end of the majority of the chains in said chain mixture, the presence of a sulfated 2,5-anhydromannitol unit of structure (a') defined above, in which  $R''R$  represents hydrogen or  $SO_3^-$ .

Please amend the paragraph beginning on page 39, line 6, as follows:

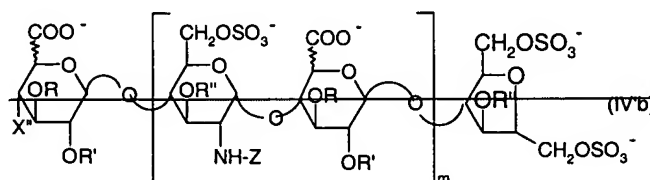
Thus, the reducing end of the majority of the chains in said chain mixture is represented by the structure (b'')

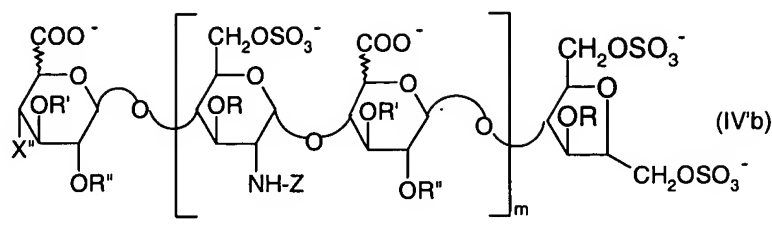


in which Z represents  $(C_2-C_4)$ acyl and the uronic unit can be glucuronic or iduronic.

Please amend the paragraph beginning on page 39, line 11, as follows:

Among the aforesaid new N-acyl-LMW-epiK5-amine-O-oversulfates, are preferred those consisting of mixtures in which the preponderant species is a compound of formula IV'b





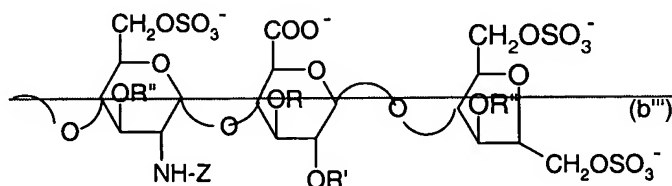
in which R, R' and R'' are hydrogen or SO<sub>3</sub><sup>-</sup>, Z is (C<sub>2</sub>-C<sub>4</sub>)acyl, X'' is OH or OSO<sub>3</sub><sup>-</sup>, m is 4, 5 or 6, for a degree of sulfation from 3.55 to 4, the uronic units are present alternately, starting with a glucuronic or iduronic unit, and the corresponding cation is one chemically or pharmaceutically acceptable ion.

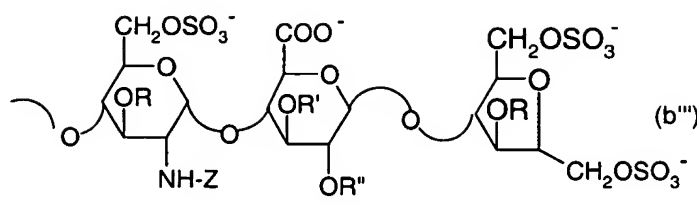
Please amend the paragraph beginning on page 41, line 13, as follows:

The origin of the new N-acyl-LMW-K5-amine-O-oversulfates from LMW-K5-sulfates obtained by nitrous depolymerization and subsequent reduction with, for example, sodium borohydride, involves, at the reducing end of the majority of the chains in said chain mixture, the presence of a sulfated 2,5-anhydromannitol unit of structure (a') as shown above, in which  $\overline{\text{R}}-\underline{\text{R}}$  represents hydrogen or SO<sub>3</sub><sup>-</sup>.

Please amend the paragraph beginning on page 41, line 19, as follows;

Thus, the reducing end of the majority of the chains in said chain mixture is represented by the structure (b''')

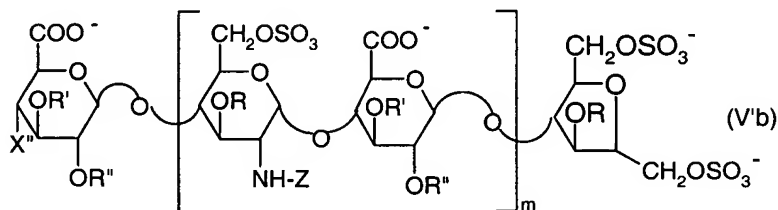
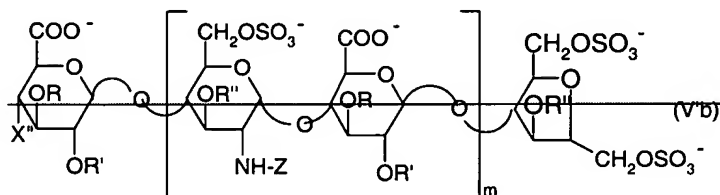




in which Z, R, R' and R'' are as defined above.

Please amend the paragraph beginning on page 41, line 23, as follows:

Among the aforesaid new N-acyl-LMW-K5-amine-O-oversulfates, are preferred those consisting of mixtures in which the preponderant species is a compound of formula V'b



in which Z is (C<sub>2</sub>-C<sub>4</sub>)acyl, R, R' and R'' are hydrogen or SO<sub>3</sub><sup>-</sup>, X'' is OH or OSO<sub>3</sub><sup>-</sup>, for a sulfation degree of at least 2.2, advantageously from 2.2 to 3 or from 2.3 to 3, more advantageously from 2.5 to 3, preferably from 2.7 to 2.9, m is 4, 5 or 6 and the corresponding cation is one chemically or pharmaceutically acceptable ion.

Please amend the paragraph beginning on page 49, line 21, as follows:

To a solution containing the 805 mg of the salt thus obtained in 30 ml of dimethylformamide is set at 55°C and treated with 30 ml of dimethylformamide containing 2.26 g of pyridine.SO<sub>3</sub> adduct. The reaction at 55°C is continued overnight then 60 ml of water are

added to the mixture. After neutralization with 1N NaOH, the product is precipitated with 3 volumes of acetone saturated with NaCl and set at 4°C overnight. The precipitate is recovered by filtration on guch G4 and then ultrafiltered with 1000 D Millipore TFF system and dried at reduced pressure. 550 mg of epi-K5-amine-O-oversulfated are obtained having a content of iduronic acid of 54%, of glucosamine-6-O-sulfate of 100%, of glucosamine 3-O-sulfate of 60%, of monosulfate glucuronic acid of 10%, of monosulfate iduronic acid of 15%, the rest of the uronic units being disulfated, with a sulfation degree of 3.55 measured after N-acetylation with the conductometric method according to Casu et al. 1975.